

(12) **United States Patent**
Takeshita et al.

(10) **Patent No.:** **US 8,659,105 B2**
(45) **Date of Patent:** **Feb. 25, 2014**

(54) **WIRING SUBSTRATE, IMAGING DEVICE
AND IMAGING DEVICE MODULE**

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(*) Notice: Subject to any disclaimer, the term of this
patent is extended or adjusted under 35
U.S.C. 154(b) by 42 days.

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(21) Appl. No.: **13/262,598**

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(22) PCT Filed: **Nov. 26, 2010**

International search report dated Dec. 28, 2010 for corresponding
PCT application PCT/JP2010/071136 cites the foreign patent docu-
ments above.

(86) PCT No.: **PCT/JP2010/071136**

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§ 371 (c)(1),

(2), (4) Date: **Nov. 30, 2011**

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(87) PCT Pub. No.: **WO2011/065485**

PCT Pub. Date: **Jun. 3, 2011**

(57)

ABSTRACT

A imaging device includes a first insulating substrate having a through hole, a connection electrode and a first wiring conductor, a second insulating substrate having outside terminals and a second wiring conductor, and an imaging element including a light-receiving portion arranged at a center portion on an upper surface thereof and a connection terminal arranged at an outer peripheral portion thereof, at least one of the lower surface of the first insulating substrate and the upper surface of the second insulating substrate including a recess portion, the through hole being located on an inner side thereof, the imaging element being arranged below the first insulating substrate such that the light-receiving portion is located within the through hole, the connection terminal being electrically connected to the connection electrode, the imaging element being accommodated inside the recess portion, outer peripheral portions of the first insulating substrate and the second insulating substrate being electrically connected to each other.

(65) **Prior Publication Data**

US 2012/0104524 A1 May 3, 2012

(30) **Foreign Application Priority Data**

Nov. 26, 2009 (JP) 2009-268222

(51) **Int. Cl.**

H01L 31/0232 (2006.01)

(52) **U.S. Cl.**

USPC **257/432**

(58) **Field of Classification Search**

USPC 257/432

See application file for complete search history.

9 Claims, 9 Drawing Sheets

